Cr<sub>2</sub>O<sub>2</sub> not less than 95%.

- (c) Uses and restrictions. Chromium oxide greens is safe for use in coloring externally applied drugs, including those intended for use in the area of eye, in amounts consistent with good manufacturing practice.
- (d) Labeling. The color additive and any mixture prepared therefrom intended solely or in part for coloring purposes shall bear, in addition to any information required by law, labeling in accordance with §70.25 of this chapter.
- (e) Exemption from certification. Certification of this color additive is not necessary for the protection of the public health, and therefore batches therof are exempt from certification pursuant to section 721(c) of the act.

[42 FR 36451, July 15, 1977]

## § 73.1329 Guanine.

- (a) *Identity*. (1) The color additive guanine is the crystalline material obtained from fish scales and consists principally of the two purines, guanine and hypoxanthine. The guanine content will vary from 75 to 97 percent, and the hypoxanthine will vary from 3 to 25 percent, depending on the particular fish and tissue from which the crystals are derived.
- (2) Color additive mixtures for drug use made with guanine may contain only those diluents listed in this subpart as safe and suitable for use in color additive mixtures for coloring externally applied drugs.
- (b) Specifications. The color additive guanine shall conform to the following specifications and shall be free from impurities other than those named to the extent that such other impurities may be avoided by good manufacturing practice:

Guanine, not less than 75 percent.

Hypoxanthine, not more than 25 percent. Ash (ignition at 800  $^{\circ}$ C), not more than 2 per-

Lead (as Pb), not more than 20 parts per million.

Arsenic (as As), not more than 3 parts per million

Assay, not less than 96 percent total purines.

Mercury (as Hg), not more than 1 part per
million.

(c) Uses and restrictions. Guanine is safe for use in coloring externally ap-

plied drugs, including those intended for use in the area of the eye, in amounts consistent with good manufacturing practice.

- (d) Labeling. The color additive and any mixture prepared therefrom intended solely or in part for coloring purposes shall bear, in addition to any information required by law, labeling in accordance with §70.25 of this chapter.
- (e) Exemption from certification. Certification of this color additive is not necessary for the protection of the public health, and therefore batches therof are exempt from certification pursuant to section 721(c) of the act.

[42 FR 37537, July 22, 1977]

# § 73.1350 Mica-based pearlescent pigments.

- (a) *Identity*. (1) The color additive is formed by depositing titanium and/or iron salts onto mica, followed by heating to produce one of the following combinations: Titanium dioxide on mica; iron oxide on mica; titanium dioxide and iron oxide on mica. Mica used to manufacture the color additive shall conform in identity to the requirements of §73.1496(a)(1).
- (2) Color additive mixtures for drug use made with mica-based pearlescent pigments may contain only those diluents listed in this subpart as safe and suitable for use in color additive mixtures for coloring ingested drugs.
- (b) Specifications. Mica-based pearlescent pigments shall conform to the following specifications and shall be free from impurities other than those named to the extent that such other impurities may be avoided by good manufacturing practice:
- (1) Lead (as Pb), not more than 4 parts per million (ppm).
- (2) Arsenic (as As), not more than 3 ppm.
- (3) Mercury (as Hg), not more than 1 ppm.
- (c) Uses and restrictions. Mica-based pearlescent pigments may be safely used to color ingested drugs in amounts up to 3 percent, by weight, of the final drug product. The maximum amount of iron oxide to be used in producing said pigments is not to exceed 55 percent, by weight, in the finished pigment.

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- (d) Labeling. The label of the color additive and of any mixture prepared therefrom intended solely or in part for coloring purposes shall conform to the requirements of §70.25 of this chapter.
- (e) Exemption from certification. Certification of this color additive is not necessary for the protection of the public health, and therefore batches thereof are exempt from the certification requirements of section 721(c) of the Federal Food, Drug, and Cosmetic Act.

[70 FR 42273, July 22, 2005. Redesignated at 72 FR 10357, Mar. 8, 2007]

#### §73.1375 Pyrogallol.

- (a) *Identity*. The color additive pyrogallol is 1,2,3-trihydroxybenzene.
- (b) Specifications. Pyrogallol shall conform to the following specifications and shall be free from impurities other than those named to the extent that such impurities may be avoided by good manufacturing practice:

Melting point, between 130° and 133 °C.

Residue on ignition, not more than 0.1 percent.

Lead (as Pb), not more than 20 p/m (parts per million).

Arsenic (as As), not more than 3 p/m.

- (c) Uses and restrictions. Pyrogallol may be safely used in combination with ferric ammonium citrate (as listed in §73.1025), for coloring plain and chromic catgut sutures for use in general and ophthalmic surgery, subject to the following restrictions:
- (1) The dyed suture shall conform in all respects to the requirements of the United States Pharmacopeia XX (1980).
- (2) The level of the ferric ammonium citrate-pyrogallol complex shall not exceed 3 percent of the total weight of the suture material.
- (3) When the sutures are used for the purposes specified in their labeling, there is no migration of the color additive to the surrounding tissues.
- (4) If the suture is a new drug, an approved new drug application, pursuant to section 505 of the act, is in effect for it.
- (d) *Labeling*. The label of the color additive shall conform to the requirements of §70.25 of this chapter.
- (e) Exemption from certification. Certification of this color additive is not necessary for the protection of the public health and therefore batches thereof

are exempt from the certification requirements of section 721(c) of the act.

[42 FR 15643, Mar. 22, 1977, as amended at 49 FR 10089, Mar. 19, 1984]

## §73.1400 Pyrophyllite.

- (a) Identity. (1) The color additive pyrophyllite is a naturally occurring mineral substance consisting predominantly of a hydrous aluminum silicate,  $Al_2O_3$ - $4SiO_2$ - $H_2$  O, intimately mixed with lesser amounts of finely divided silica,  $SiO_2$ . Small amounts, usually less than 3 percent, of other silicates, such as potassium aluminum silicate, may be present. Pyrophyllite may be identified and semiquantitatively determined by its characteristic X-ray powder diffraction pattern and by its optical properties.
- (2) Color additive mixtures made with pyrophyllite are limited to those listed in this subpart as safe and suitable in color additive mixtures for coloring externally applied drugs.
- (b) Specifications. Pyrophyllite shall conform to the following specifications:

Lead (as Pb), not more than 20 parts per million.

Arsenic (as As), not more than 3 parts per million.

Lead and arsenic shall be determined in the solution obtained by boiling 10 grams of the pyrophyllite for 15 minutes in 50 milliliters of 0.5N hydrochloric acid.

- (c) Uses and restrictions. Pyrophyllite may be safely used in amounts consistent with good manufacturing practice to color drugs that are to be externally applied.
- (d) Labeling requirements. The labeling of the color additive and any mixtures prepared therefrom intended solely or in part for coloring purposes shall conform to the requirements of §70.25 of this chapter.
- (e) Exemption from certification. Certification of this color additive is not necessary for the protection of the public health, and therefore batches thereof are exempt from the certification requirements of section 721(c) of the act.

## §73.1410 Logwood extract.

(a) *Identity*. The color additive logwood extract is a reddish brown-to-